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A New Species of the Genus *Pericalus* Macleay, Subgenus *Coeloprosopus* Chaudoir from Borneo (Insecta: Coleoptera: Carabidae: Lebiinae)

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With 2 figures

Summary

Pericalus nigripes **sp. n.** from Mt. Kinabalu, Sabah, Borneo is described. In spite of the completely black legs it does not belong to the *tetrastigma*-assemblage but to the *quadrimaculatus*-group within the subgenus *Coeloprosopus.* A partly reviewed key to the species of this subgenus is presented.

Zusammenfassung

Pericalus nigripes **sp. n.** vom Mt. Kinabalu in Sabah, Borneo wird neu beschrieben. Trotz ihrer vollständig schwarzen Beine gehört diese Art nicht in die *tetrastigma*-Gruppe, sondern in die *quadrimaculatus*-Gruppe innerhalb der Untergattung *Coeloprosopus.* Ein teilweise überarbeiteter Schlüssel für die Arten dieser Untergattung ist beigefügt.

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1. Introduction

Within material of the Staatliches Museum für Naturkunde, Stuttgart, obtained for determination, inter alia a new species of the subgenus *Coeloprosopus* Chaudoir of the Oriental genus *Pericalus* Macleay was observed. The single specimen was collected together with *P. (Coeloprosopus) quadrimaculatus* (Macleay), *P. (C.) xanthopus* Schaum, and *P.* (s. str.) *longicollis* Chaudoir at fairly low altitude on the slope of Mt. Kinabalu, Sabah, northeastern Borneo.

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The genus *Pericalus* has a vast range within the Oriental region, occurring from India to Taiwan, and south to Celebes (Sulawesi) and the Philippines. It crosses the borders of the Oriental region in New Guinea and New Britain, but has not yet been recorded from Australia. About 30 species have been described that divide in two well distinguished subgenera: *Pericalus* s. str. that includes wide, usually blackish or dark bluish, depressed species with ovalish elytra and wide, cordiform pronota bearing wide lateral margins; and *Coeloprosopus* Chaudoir that includes more convex, commonly greenish species with narrower pronota bearing narrow, linear lateral margins. The latter subgenus has a far wider distribution, and only species of this subgenus so far were recorded from outside the Oriental region on the Australian side of Wallace's line. The subgenus *Coeloprosopus* certainly is apotypic compared with the nominate subgenus, and at the same time it is more speciose and the species are still more closely related due to more recent taxonomic diversification.

This description is a supplement to my recent revision of the subgenus *Coeloprosopus* (Baehr 1994). Measurements and technics were conducted in the same way as in that paper.

2. Acknowledgement

My thanks are due to Dr. W. SCHAWALLER (Stuttgart) for the kind loan of the sample including the new species.

3. Genus *Pericalus* Macleay, subgenus *Coeloprosopus* Chaudoir

An extensive diagnosis and citation of the relevant literature was given in BAEHR (1994).

Pericalus nigripes sp. n. (Figs. 1–2)

Holotype (♂): Borneo, E-Malaysia, Sabah, Kinabalu NP, Poring Hot Spring, 580 m, Dipterocarp forest, canopy, Por 1. 24. III. 1997, 19.30–20.00 h, leg. CHR. H. SCHULZE et al., (SMNS).

Diagnosis: Comparatively large species, at first glance distinguished by a combination of completely black legs, and of elytra without a fringe of hairs on the epipleurae, with very large, circular, light spots, shallow striation, and remarkably sericeous lustre on surface.

Description: Measurements. Length: 8.8 mm; width: 3.5 mm. Ratios: Width/length of prothorax: 1.10; width head/prothorax: 1.32.

Colour and pattern. Head and prothorax green, at the margins with slight golden hue. Labrum black. Elytra green with very dark violaceous, almost blackish lustre between the spots. Elytral spots light orange. Antenna reddish-piceous, four basal antennomeres black. Palpi black. Legs completely black. Elytra with two large, remarkably circular spots as shown in fig. 2. Both spots situated on 3rd–6th intervals, anterior spot slightly overlapping onto 7th interval.

Head. Surface with very dense and distinct microreticulation. Frons between eyes and vertex with numerous fine, rather regular longitudinal strioles. Surface remarkably dull.

Pronotum. Comparatively narrow, apex gently excised, prebasal sinuosity fairly deep, posterior angles large, acute, moderately projecting laterally and posteriorly.

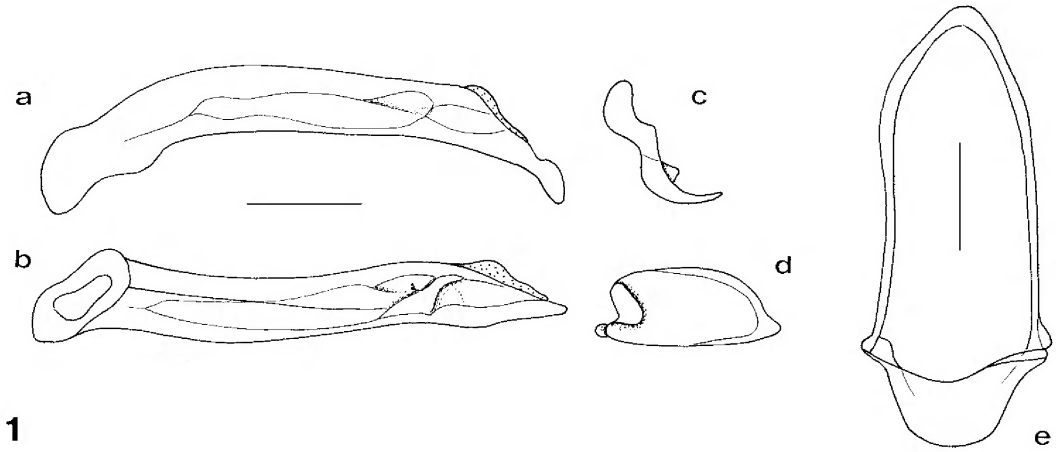

Fig. 1 *Pericalus nigripes,* n. sp.; male genitalia. – a. Aedeagus, lateral view; – b. aedeagus, lower view; – c. right paramere; – d. left paramere; – e. genital ring. – Scales: 0.5 mm.

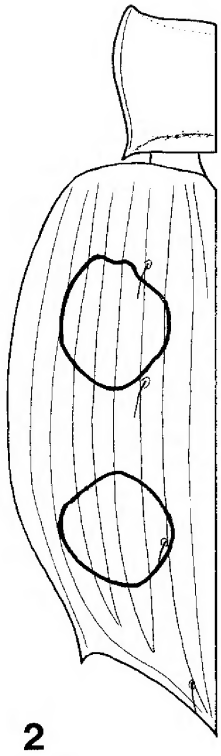

Fig. 2. *Pericalus nigripes* sp. n.; shape of pronotum and elytra, and color pattern.

Anterior transverse sulcus very shallow, posterior sulcus deep, disk markedly convex, marginal sulcus very narrow. Microreticulation reduced, distinct only laterally and at base, surface with dense, rather coarse, somewhat irregular transverse wrinkles and fine, rather sparse punctures, fairly glossy.

Elytra. Rather wide, moderately depressed, in the male lateral border almost evenly rounded. Lateral apical spines fairly elongate, sutural spines very short. Stri-

ae shallow, smooth, intervals feebly convex. 3rd interval quadripunctate, both anterior punctures situated at 3rd stria in anterior third, both posterior punctures situated near 2nd stria in posterior third and very close to apex. Microreticulation distinct, very transverse, giving the surface a remarkably sericeous lustre.

♂ genitalia (Fig. 1). Genital ring narrow and elongate, rather parallel, apex evenly rounded. Aedeagus narrow and elongate, in ventral view slightly sinuate, apex thickened and distinctly bent down, somewhat hook-shaped. Parameres as in figs 1 c–d.

♀ genitalia. Unknown.

Variation. Unknown.

Distribution: Mt. Kinabalu, Sabah, northeastern Borneo. Known only from type locality.

Collecting circumstances: Probably collected from canopy in rain forest at rather low altitude. It is unknown, however, whether this was done by hand sampling or by fogging. Collecting time was in the evening, most probably after darkness.

Etymology: The name refers to the black legs of this species.

Relationships: In spite of the completeley black legs which are typical for both species of the *tetrastigma*-group of the subgenus *Coeloprosopus (P. tetrastigma* Chaudoir and *P. atricornis* Baehr) and that do not occur in any other species of the subgenus, the new species certainly does not belong to the *tetrastigma*-group, but rather to the *quadrimaculatus-signatus-robustus-laetus*-assemblage. Nevertheless, this is a rather outstanding species by virtue of its black legs, very shallow elytral striae and highly sericeous lustre.

4. Remarks

Combining the sample mentioned above and what is known on the pericaline fauna of Borneo from the literature (Andrewes 1926, 1931, Louwerens 1964, Stork 1986, Baehr 1994), now five species of *Pericalus* are recorded from Mt. Kinabalu, and altogether ten species from the whole island. At Mt. Kinabalu, four species apparently occur at the same locality and actually have been collected together. This is surprising, because at least the species of the subgenus *Coeloprosopus* are rather similar in size and body shape. However, *P. nigripes* sp. n. is distinguished from both *P. quadrimaculatus* (Macleay) and *P. xanthopus* Schaum by its slightly larger size and heavier body, and *P.* (s. str.) *longicollis* Chaudoir represents again another type of body shape. So, the four species may have somehow different niches to reduce competition, though the exact way is unknown. It is worth noting that the specimens of all four mentioned species apparently have been caught from "canopy", because according to most collectors' notices usually the *Pericalus* species are rather caught while running on logs and trunks.

5. Identification

When using the key to the species of the subgenus *Coeloprosopus* in my revision (Baehr 1994), the reader will stop immediately at caption 2 because of the colour of

the legs that in the new species contradicts the colour and pattern of elytra. Hence, the key has to be altered as following from caption **1** to caption **5**:

1 Colour pattern of elytra consisting of two pairs of rather circular spots **2**
– Colour pattern of elytra consisting of two pairs of triangular or more or less transverse spots or stripes, the anterior one being more or less serrate and anteriorly distinctly excised (doubtful species under both couplets) **13**

2 Elytra completely blue or violaceous; elytral spots small, only 2 (rarely 3) intervals wide; epipleurae of elytra with a fringe of hairs. Malaysia, Sumatra, Borneo **3**
– Elytra usually not completely blue or violaceous; elytral spots variable, commonly larger; epipleurae of elytra without a fringe of hairs **4**

3 Smaller species, <8.5 mm; microreticulation of pronotum weaker; elytral striae deep. Malaysia, Sumatra, Borneo ..... ***tetrastigma*** Chaudoir
– Larger species, >10.0 mm; microreticulation of pronotum strong; elytral striae shallow. Sumatra ..... ***atricornis*** Baehr

4 Legs completely black; rather large, bulky species, elytra with large, circular spots (Fig. 2), with shallow striae, and with remarkably sericeous lustre. Borneo: Sabah . ***nigripes*** **sp. n.**
– Legs not completely black; size, colour pattern, and striation of elytra variable, but never in same combination as above **4a**

4a Anterior elytral spot usually only 2–3 intervals wide (on 3th–5th or on 4th–6th intervals), in latter case rarely overlapping to the external part of 3rd interval **5**
– Anterior elytral spot at least 4 intervals wide (on 4th–7th intervals), or even wider (doubtful species under both couplets) ..... **10.**

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